

**United States Patent** [19]**Pollock et al.**[11] **Patent Number:** **4,477,158**[45] **Date of Patent:** **Oct. 16, 1984**[54] **LENS SYSTEM FOR VARIABLE REFRACTION**

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*Primary Examiner*—John K. Corbin*Assistant Examiner*—Scott J. Sugarman*Attorney, Agent, or Firm*—Robert E. Wagner; Ralph R. Rath[57] **ABSTRACT**

A lens system for variable refraction comprising a solid housing having a single internal chamber completely filled with a plurality of immiscible liquids of preselected densities and refractive indices. The chamber is of a form such that the amount and distribution of each liquid in the optical portion of the system is altered when the system is tilted, producing a change in refractive power. The system may be incorporated into spectacle lenses or contact lenses to provide a continuous spectrum of refractive power, or into contact lenses to provide bifocal capability.

**33 Claims, 19 Drawing Figures**